8. A magnetron as claimed in claim 1 and including at least one axially extensive reflector slit in the output means for reflecting energy from said another oscillator mode back towards the resonant cavities.

10. A magnetron as claimed in claim 8 wherein a reflector slit is located in the surface of the outer conductor of the coaxial line.

11. A magnetron as claimed in claim 8 wherein a reflector slit is located in the inner conductor of the coaxial line.

14. A magnetron as claimed in claim 1 wherein the coaxial line is arranged to deliver energy to a waveguide.

16. A magnetron as claimed in claim 14 wherein the coaxial line includes a discontinuity which at least reduces transmission along the coaxial line of energy reflected from the waveguide back towards the anode in a cylindrical waveguide mode.

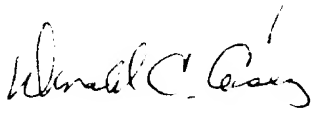
17. A magnetron as claimed in claim 1 and including a second coaxial line arranged to receive energy in said another oscillator mode coupled in an axial direction from the end of the anode where the cathode lead is located and transmit it as a cylindrical waveguide mode.

22. A magnetron as claimed in claim 17 and including at least one axially extensive reflector slit in the second coaxial line for reflecting energy from said another oscillator mode back towards the resonant cavities.

23. A magnetron as claimed in claim 1 wherein the anode has an axial length of greater than 3 /4.

24. A magnetron as claimed in claim 1 wherein the magnetron is an X-band linac magnetron.

Respectfully submitted,



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